AMENDED VERSION

CLAIMS:

1. Canceled.

2. Canceled.

3. (Previously presented) A compound comprising a metal complexed with a chelating group attached to a gastrin releasing peptide (GRP) receptor agonist, the gastrin releasing peptide receptor agonist including a bombesin agonist binding moiety, wherein said compound binds a gastrin releasing peptide receptor on a cell surface and is internalized within the cell and said compound has a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety and Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof.

4. (Previously presented) The compound of claim 3 wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, and NS3.

5. (Original) The compound of claim 4 wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

6. (Previously presented) The compound of claim 4 wherein X is DOTA.

7. (Original) The compound of claim 6 wherein Y is selected is from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

8. (Original) The compound of claim 7 wherein Y is a combination of L-glutamine and a hydrocarbon chain.

9. (Original) The compound of claim 8 wherein Y is a combination of L-glutamine and a C1 to C10 hydrocarbon chain.

10. (Original) The compound of claim 9 wherein Y is selected from the group consisting of glycine, ß-alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-

Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

11. (Previously presented) The compound of claim 4 wherein X is N3S.

12. (Original) The compound of claim 11 wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

13. (Original) The compound of claim 12 wherein Y is gly-ser-gly.

14. Canceled.

15. (Previously presented) A complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide (GRP) receptor agonist, the GRP receptor agonist including a bombesin agonist moiety and the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α-, β- or γ-emitting isotopes, wherein said complex binds a gastrin releasing peptide receptor on a cell surface and said complex is internalized within the cell.

16. (Previously Presented) The complex of claim 15 wherein the metal is selected from the group consisting of: 105Rh-, 99mTc-, 186/188Re-, 153Sm-, 166Ho-, 111In-, 90Y-, 177Lu-, 149Pm-, 166Dy-, 175Yb-, 199Au- and 117mSn-.

17. (Previously presented) The complex of claim 16 wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, and NS3.

18. (Original) The complex of claim 17 wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

19. (Previously presented) The complex of claim 16 wherein X is DOTA.

20. (Original) The complex of claim 19 wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a

combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

21. (Original) The complex of claim 20 wherein Y is a combination of L-glutamine and a hydrocarbon chain.

22. (Original) The complex of claim 21 wherein Y is a combination of L-glutamine and a C1 to C10 hydrocarbon chain.

23. (Original) The complex of claim 22 wherein Y is selected from the group consisting of glycine, ß-alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

24. (Original) The complex of claim 23 wherein Y is 8-aminooctanoic acid.

25. (Original) The complex of claim 23 consisting of 90Y-DOTA-8-Aoc-BBN(7-14)NH2.

26. (Original) The complex of claim 23 consisting of 111In-DOTA-8-Aoc-BBN(7-14) NH2.

27. (Original) The complex of claim 23 consisting of 177Lu-DOTA-8-Aoc-BBN(7-14) NH2.

28. (Original) The complex of claim 23 consisting of 149Pm-DOTA-8-Aoc-BBN(7-14) NH2.

29. (Original) The complex of claim 23 consisting of 90Y-DOTA-5-Ava-BBN(7-14)NH2.

30. (Original) The complex of claim 23 consisting of 111In-DOTA-5-Ava-BBN(7-14) NH2.

31. (Original) The complex of claim 23 consisting of 177Lu-DOTA-5-Ava-BBN(7-14) NH2.

32. (Original) The complex of claim 23 consisting of 149Pm-DOTA-5-Ava-BBN(7-14) NH2.

33. (Previously presented) The complex of claim 16 wherein X is N3S.

34. (Original) The complex of claim 33 wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a

combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

35. (Original) The complex of claim 34 wherein Y is gly-ser-gly.

36. (Original) The complex of claim 34 consisting of 99mTc-N3S-gly-ser-gly-BBN(7-14)NH2.

37. Canceled.

38. (Currently amended) A method of treating cancer in patients using radioisotope therapy by administering an effective amount of a pharmaceutical comprising a metal complex that binds a gastrin releasing peptide receptor on a cell surface and is internalized within the cell, said complex having a chelating group with a GRP receptor agonist, the GRP receptor agonist including a bombesin agonist moiety, the complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.

39. (Currently amended) The method of claim 38 wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and a-, ß- or ~~?~~γ-emitting isotopes.

40. (Original) The method of claim 38 wherein the metal is selected from the group consisting of: 105Rh-, 99mTc-, 186/188Re-, 153Sm-, 166Ho-, 111In-, 90Y-, 177Lu-, 149Pm-, 166Dy-, 175Yb-, 199Au- and 117mSn-.

41. (Previously presented) The method of claim 40 wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, and NS3.

42. (Previously presented) The method of claim 41 wherein X is DOTA.

43. (Original) The method of claim 42 wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

44. (Original) The method of claim 43 wherein Y is a combination of L-glutamine and a hydrocarbon chain.

45. (Original) The method of claim 44 wherein Y is selected from the group consisting of glycine, ß-alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

46. (Currently amended) A method of imaging a patient by administering to a subject a diagnostically effective amount of a compound as set forth in claim ~~1~~3.

47. (Original) The method of claim 46, wherein said method includes administering an effective amount of a complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.

48. (Currently amended) The method of claim 47 wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and a-, ß- or ~~?~~y-emitting isotopes.

49. (Previously presented) The method of claim 48 wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, and NS3.

50. (Previously presented) The method of claim 49 wherein X is N3S.

51. (Original) The method of claim 50 wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

52. (Original) The method of claim 51 wherein Y is gly-ser-gly.

53. (Currently amended) A method of forming a therapeutic or diagnostic compound that binds a gastrin releasing peptide receptor on a cell surface and is internalized within the cell, said method comprising the step of reacting a metal complexed with a chelating group with a GRP receptor agonist the receptor agonist including a bombesin agonist moiety, the complex having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin

agonist binding moiety, thereby forming a therapeutic compound that binds a gastrin releasing peptide receptor on a cell surface and is internalized within the cell.

54. Canceled.

55. (Currently amended) The method of claim ~~54~~53 wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α-, β- or γ-emitting isotopes.

56. (Currently amended) The method of claim ~~54~~53 wherein the metal is selected from the group consisting of: 99mTc- and 186/188Re-.

57. (Original) The method of claim 56 wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof.

58. (Previously presented) The method of claim 57 wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, and NS3.

59. (Original) The method of claim 58 wherein B is selected from the group consisting of BBN(7-14) and BBN(8-14).

60. (Original) The method of claim 59 wherein X is DOTA or a derivative thereof and Y is selected from the group consisting of glycine, ß-alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

61. (Previously presented) The method of claim 59 wherein X is N3S and Y is gly-ser-gly.